ILE 'HOME' ENTERED AT 16:13:57 ON 23 SEP 2004

=> file biosis medline caplus wpids uspatfull

COST IN U.S. DOLLARS

SINCE FILE ENTRY

TOTAL

FULL ESTIMATED COST

0.21

SESSION 0.21

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FILE 'MEDLINE' ENTERED AT 16:14:22 ON 23 SEP 2004

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FILE 'WPIDS' ENTERED AT 16:14:22 ON 23 SEP 2004 COPYRIGHT (C) 2004 THE THOMSON CORPORATION

FILE 'USPATFULL' ENTERED AT 16:14:22 ON 23 SEP 2004 CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> file biosis medline caplus wpids uspatfull COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY 7.18

SESSION 7.39

FILE 'BIOSIS' ENTERED AT 16:18:51 ON 23 SEP 2004 Copyright (c) 2004 The Thomson Corporation.

FILE 'MEDLINE' ENTERED AT 16:18:51 ON 23 SEP 2004

FILE 'CAPLUS' ENTERED AT 16:18:51 ON 23 SEP 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 16:18:51 ON 23 SEP 2004 COPYRIGHT (C) 2004 THE THOMSON CORPORATION

FILE 'USPATFULL' ENTERED AT 16:18:51 ON 23 SEP 2004 CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s biosensor and plurality (5a) electrode? and nucleic acid? 3 FILES SEARCHED...

L175 BIOSENSOR AND PLURALITY (5A) ELECTRODE? AND NUCLEIC ACID?

=> dup rem l1

PROCESSING COMPLETED FOR L1

1.2 74 DUP REM L1 (1 DUPLICATE REMOVED)

=> s 12 and monitor?

58 L2 AND MONITOR?

=> s 13 and hybridization

33 L3 AND HYBRIDIZATION

=> s 14 and current

31 L4 AND CURRENT

```
=> s 15 and electric potential
            17 L5 AND ELECTRIC POTENTIAL
=> d 16 bib abs 1-17
     ANSWER 1 OF 17 USPATFULL on STN
       2004:234268 USPATFULL
AN
TΙ
       Computer program products and systems for rapidly changing the solution
       environment around sensors
       Wigstrom, Joakim, Frolunda, SWEDEN
TN
       Sinclair, Jon, Goteborg, SWEDEN
PA
       Cellectricon AB (non-U.S. corporation)
PΙ
       US 2004181343
                               20040916
                          A1
       US 2003-698599
                                20031031 (10)
AΙ
                          Α1
PRAI
       US 2002-423197P
                           20021101 (60)
DT
       Utility
FS
       APPLICATION
LREP
       EDWARDS & ANGELL, LLP, P.O. Box 9169, Boston, MA, 02209
       Number of Claims: 161
CLMN
       Exemplary Claim: 1
ECL
DRWN
       26 Drawing Page(s)
LN.CNT 3486
AB
       The invention provides computer program products for coordinating the
       movement of cells and other components in a microfluidic substrate with
       data acquisition. The microfluidic workstation may be used to examine
       the physiological responses of ion channels, receptors, neurons, and
       other cells to fluidic streams. The system may also be useful for
       screening compound libraries to search for novel classes of compounds,
       screening members of a given class of compounds for effects on specific
       ion channel proteins and receptors, and to rapidly determine
       dose-response curves in cell-based assays.
L6
     ANSWER 2 OF 17 USPATFULL on STN
       2004:190094 USPATFULL
AN
TI
       ELECTRONIC DETECTION OF BIOLOGICAL MOLECULES USING THIN LAYERS
       Pisharody, Sobha M., Dublin, CA, UNITED STATES
IN
       Kunwar, Sandeep, Redwood City, CA, UNITED STATES Mathai, George T., Dublin, CA, UNITED STATES
PI
       US 2004146863
                          A1
                                20040729
       US 2001-970087
ΑI
                          Α1
                                20011002 (9)
       US 2001-297583P
PRAI
                           20010611 (60)
DT
       Utility
FS
       APPLICATION
LREP
       FENWICK & WEST LLP, SILICON VALLEY CENTER, 801 CALIFORNIA STREET,
       MOUNTAIN VIEW, CA, 94041
CLMN
       Number of Claims: 165
ECL
       Exemplary Claim: 1
DRWN
       18 Drawing Page(s)
LN.CNT 2626
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AΒ
       This invention provides novel sensors that facilitate the detection of
       essentially any analyte. In general, the biosensors of this invention
       utilize a binding agent (e.g. biomolecule) to specifically bind to one
       or more target analytes. In preferred embodiments, the biomolecules
       spans a gap between two electrodes. Binding of the target analyte
       changes conductivity of the sensor thereby facilitating ready detection
       of the binding event and thus detection and/or quantitation of the bound
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

analyte. A molecular sensing apparatus comprising.

2004:190080 USPATFULL AN Biochips including ion transport detecting structures and methods of use TIHuang, Mingxian, San Diego, CA, UNITED STATES TN Rothwarf, David, La Jolla, CA, UNITED STATES Xu, Jia, San Diego, CA, UNITED STATES Wang, Xiaobo, San Diego, CA, UNITED STATES Wu, Lei, San Diego, CA, UNITED STATES Guia, Antonio, San Diego, CA, UNITED STATES US 2004146849 20040729 PΙ A120030816 (10) AΙ US 2003-642014 A1 Continuation-in-part of Ser. No. US 2003-351019, filed on 23 Jan 2003, RLI ABANDONED US 2002-351849P 20020124 (60) PRAI US 2002-380007P 20020504 (60) DT Utility FS APPLICATION DAVID R PRESTON & ASSOCIATES, 12625 HIGH BLUFF DRIVE, SUITE 205, SAN LREP DIEGO, CA, 92130 Number of Claims: 11 CLMN Exemplary Claim: 1 ECL 43 Drawing Page(s) DRWN LN.CNT 6215 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention recognizes that the determination of an ion transport function or property using direct detection methods, such as patch-clamps, whole cell recording or single channel recording, are preferable to methods that utilize indirect detection methods, such as FRET based detection system. The present invention provides biochips and methods of use that allow for the direct analysis of ion transport functions or properties using microfabricated structures that can allow for automated detection of one or more ion transport functions or properties. These biochips and methods of use thereof are particularly appropriate for automating the detection of ion transport functions or properties, particularly for screening purposes. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 4 OF 17 USPATFULL on STN 1.6 2004:166597 USPATFULL AN Method of analyzing the time-varying electrical response of a stimulated TI · target substance Laletin, William H., Slidell, LA, UNITED STATES TN Salloux, Kurt, Topanga, CA, UNITED STATES US 2004128088 20040701 PΤ **A** 1 20030919 (10) ΑI **A**1 US 2003-666567 Continuation-in-part of Ser. No. US 2003-443230, filed on 21 May 2003, RLI PENDING Continuation-in-part of Ser. No. US 1998-122181, filed on 24 Jul 1998, PENDING Continuation-in-part of Ser. No. WO 1997-US5002, filed on 27 Mar 1997, PENDING PRAI US 1997-54466P 19970725 (60) US 1996-14159P 19960327 (60) Utility DТ APPLICATION FS Mark S. Leonardo, Esq., Brown Rudnick Berlack Israels LLP, One Financial LREP Center, Boston, MA, 02111 Number of Claims: 25 CLMN ECL Exemplary Claim: 1 DRWN 59 Drawing Page(s) LN.CNT 1775 A time varying electrical excitation(s) is applied to a system containing biologic and/or non-biologic elements, whereupon the time-varying electrochemical or electrical response is detected and analyzed. For biologic specimens, the presence, activity, concentration or relative quantity, and certain inherent characteristics of certain

target substances (hereinafter referred to as "target analytes") within, or comprising, the specimen of interest may be determined by measuring either the current response induced by a voltage-mode excitation, or the voltage response induced by a current-mode excitation. Labeling or marker techniques may be employed, whereby electrochemically active auxiliary molecules are attached to the substance to be analyzed, in order to facilitate or enhance the electrochemical or electrical response. The method may also be employed to test non-biologic systems comprising an electrochemical cell or a battery of cells, wherein complex pulse type excitation signals are applied to the cell and the resultant time varying polarization voltage information is extracted and analyzed to determine at least one characteristic of the cell(s) condition or state.

ANSWER 5 OF 17 USPATFULL on STN

ANSWER 6 OF 17 USPATFULL on STN

Electrochemical detection of nucleic acid sequences

Henkens, Robert W., Beaufort, NC, UNITED STATES

O'Daly, John P., Carrboro, NC, UNITED STATES Wojciechowski, Marek, Cary, NC, UNITED STATES Zhang, Honghua, San Diego, CA, UNITED STATES Naser, Najih, Orlando, FL, UNITED STATES

2004:94706 USPATFULL

L6

L6

ΑN

ΤI

IN

```
2004:113586 USPATFULL
AN
      Multi-array, multi-specific electrochemiluminescence testing
ΤI
       Wohlstadter, Jacob N., Rockville, MD, UNITED STATES
IN
       Wilbur, James, Germantown, MD, UNITED STATES
       Signal, George, Rockville, MD, UNITED STATES
      Martin, Mark, Rockville, MD, UNITED STATES
      Guo, Liang-Hong, Gaithersburg, MD, UNITED STATES
       Fischer, Alan, Cambridge, MA, UNITED STATES
       Leland, Jon, Silver Spring, MD, UNITED STATES
       Billadeau, Mark A., Mt. Airy, MD, UNITED STATES
       Helms, Larry R., Germantown, MD, UNITED STATES
       Darvari, Ramin, Waltham, MA, UNITED STATES
       US 2004086423
                          A1
                               20040506
PΤ
       US 2003-693441
                          A1
                               20031024 (10)
ΑI
       Division of Ser. No. US 1997-932110, filed on 17 Sep 1997, GRANTED, Pat.
RLI
       No. US 6673533 Continuation-in-part of Ser. No. US 1996-715163, filed on
       17 Sep 1996, GRANTED, Pat. No. US 6207369 Continuation-in-part of Ser.
       No. US 1996-611804, filed on 6 Mar 1996, GRANTED, Pat. No. US 6066448
       Continuation-in-part of Ser. No. US 1995-402076, filed on 10 Mar 1995,
       ABANDONED Continuation-in-part of Ser. No. US 1995-402277, filed on 10
       Mar 1995, ABANDONED
       Utility
DТ
FS
       APPLICATION
       KRAMER LEVIN NAFTALIS & FRANKEL LLP, INTELLECTUAL PROPERTY DEPARTMENT,
LREP
       919 THIRD AVENUE, NEW YORK, NY, 10022
       Number of Claims: 108
CLMN
ECL
       Exemplary Claim: 1
       47 Drawing Page(s)
DRWN
LN.CNT 7253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Materials and methods are provided for producing patterned multi-array,
AB
       multi-specific surfaces for use in diagnostics. The invention provides
       for electrochemiluminescence methods for detecting or measuring an
       analyte of interest. It also provides for novel electrodes for ECL
       assays. Materials and methods are provided for the chemical and/or
       physical control of conducting domains and reagent deposition for use
       multiply specific testing procedures.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

Roe, R. Michael, Apex, NC, UNITED STATES Stewart, Thomas N., Durham, NC, UNITED STATES Thompson, Deborah M., Raleigh, NC, UNITED STATES Sundseth, Rebecca, Durham, NC, UNITED STATES Wegner, Steven E., Chapel Hill, NC, UNITED STATES US 2004072158 A1 20040415 US 2002-82714 20020225 (10) A1 Division of Ser. No. US 2000-549853, filed on 14 Apr 2000, GRANTED, Pat. No. US 6391558 Continuation-in-part of Ser. No. US 1998-44206, filed on 17 Mar 1998, ABANDONED US 1997-40949P 19970318 (60) Utility APPLICATION Atten. Gregory A Nelson, Akerman Senterfitt, Suite 400, 222 Lakeview Avenue P O Box 3188, West Palm Beach, FL, 33402-3188 Number of Claims: 21 Exemplary Claim: 1 20 Drawing Page(s) LN.CNT 4480 CAS INDEXING IS AVAILABLE FOR THIS PATENT. An electrochemical detection system which specifically detects selected nucleic acid segments is described. The system utilizes biological probes such as nucleic acid or peptide nucleic acid probes which are complementary to and specifically hybridize with selected nucleic acid segments in order to generate a measurable current when an amperometric potential is applied. The electrochemical signal can be quantified. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 7 OF 17 USPATFULL on STN 2004:4360 USPATFULL Multi-array multi-specific electrochemiluminescence testing Wohlstadter, Jacob N., Rockville, MD, United States Wilbur, James, Germantown, MD, United States Sigal, George, Rockville, MD, United States Martin, Mark, Rockville, MD, United States Guo, Liang-Hong, Gaithersburg, MD, United States Fischer, Alan, Cambridge, MA, United States Leland, Jon, Silver Spring, MD, United States Billadeau, Mark A., Mt. Airy, MD, United States Helms, Larry R., Germantown, MD, United States Darvari, Ramin, Waltham, MA, United States Meso Scale Technologies, LLC., Gaithersburg, MD, United States (U.S. corporation) US 6673533 20040106 B1 19970917 (8) US 1997-932110 Continuation-in-part of Ser. No. US 1996-715163, filed on 17 Sep 1996, now patented, Pat. No. US 6207369 Continuation-in-part of Ser. No. US 1996-611804, filed on 6 Mar 1996, now patented, Pat. No. US 6066448 Continuation-in-part of Ser. No. US 1995-402076, filed on 10 Mar 1995, now abandoned Continuation-in-part of Ser. No. US 1995-402277, filed on 10 Mar 1995, now abandoned Utility GRANTED Primary Examiner: Chin, Christopher L. Kramer Levin Naftalis & Frankel LLP, Evans, Esq., Barry Number of Claims: 92 Exemplary Claim: 1 87 Drawing Figure(s); 47 Drawing Page(s) LN.CNT 7196 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Materials and methods are provided for producing patterned multi-array,

PI

ΑI

RLI

PRAI DT

LREP

CLMN ECL

DRWN

1.6 AN

TΤ

TN

PΑ

PΙ

ΑТ RLI

DT

FS

EXNAM

LREP

CLMN ECL

DRWN

FS

multi-specific surfaces for use in diagnostics. The invention provides for electrochemiluminescence methods for detecting or measuring an analyte of interest. It also provides for novel electrodes for ECL assays. Materials and methods are provided for the chemical and/or physical control of conducting domains and reagent deposition for use multiply specific testing procedures.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 8 OF 17 USPATFULL on STN
L6
       2003:318643 USPATFULL
AN
ΤI
       Association of molecules with electrodes of an array of electrodes
IN
       Kunwar, Sandeep, Hillsborough, CA, UNITED STATES
       Pisharody, Sobha, Castro Valley, CA, UNITED STATES
       Mathai, George Thomas, Castro Valley, CA, UNITED STATES
       Scaboo, Kristian, Castro Valley, CA, UNITED STATES
       US 2003224387
                               20031204
PΤ
                          A1
AΙ
       US 2002-327868
                          Α1
                               20021226 (10)
PRAI
       US 2002-382074P
                           20020522 (60)
       Utility
ידת
       APPLICATION
       PENNIE & EDMONDS LLP, 1667 K STREET NW, SUITE 1000, WASHINGTON, DC,
LREP
       20006
```

CLMN Number of Claims: 149 Exemplary Claim: 1 ECL

DRWN 15 Drawing Page(s)

LN.CNT 3046

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention relates to a method for selectively modifying electrodes of an array of electrodes. The array of electrodes may be used as a sensor or biosensor to determine the presence of and/or identity of each of a plurality of analyte molecules. In accordance with the present invention, electrodes of each of a number N subsets of electrodes of an array of electrodes are contacted with a respective liquid, each of which comprises a respective, different molecule. For each subset of the N subsets of electrodes, at least one of the member electrodes is deprotected to allow molecules of the respective liquid to associate with the deprotected electrode. The steps of contacting subsets of electrodes and deprotecting selected electrodes is repeated until each electrode in the array has been associated with a predetermined molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L6
     ANSWER 9 OF 17 USPATFULL on STN
       2003:288636 USPATFULL
ΑN
TI
       Detection of a target in a sample
IN
       Eichen, Yoav, Haifa, ISRAEL
       Sivan, Uri, Haifa, ISRAEL
Braun, Erez, Haifa, ISRAEL
PΙ
       US 2003203394
                           Α1
                                 20031030
ΑI
       US 2003-452139
                           A1
                                 20030603 (10)
       Continuation of Ser. No. US 2001-674090, filed on 1 Mar 2001, PENDING A
RLI
       371 of International Ser. No. WO 1999-IL232, filed on 4 May 1999,
       UNKNOWN
       IL 1998-124322
PRAI
                            19980504
DT
       Utility
FS
       APPLICATION
LREP
       DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP, 2101 L STREET NW, WASHINGTON,
       DC, 20037-1526
CLMN
       Number of Claims: 15
```

LN.CNT 2134

Exemplary Claim: 1

44 Drawing Page(s)

ECL

DRWN

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The invention concerns a system, device, kit and method for detecting the presence, or concentration of a target in a sample. An assay set comprising at least two spaced apart electrodes is used, comprising a recognition moiety, capable of specific binding to the target, which is attached to at least one of the electrodes or the substrate therein between. If the recognition moiety binds the target then a conductive bridge can be formed between the electrodes, based on the complex between the recognition moiety and the target. The conductive bridge is formed by using nucleation-center forming entities attached to said complexes or to said targets from which a conductive substance is substantially grown. Alternatively the conducting bridge forms a conductive polymer between the electrodes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ANSWER 10 OF 17 USPATFULL on STN L6 ΑN 2002:322463 USPATFULL Biochips including ion transport detecting strucutres and methods of use ΤI Wang, Xiaobo, San Diego, CA, UNITED STATES IN Wu, Lei, San Diego, CA, UNITED STATES Xu, Jun Quan, Beijing, CHINA Huang, Ming Xiang, San Diego, CA, UNITED STATES Yang, Weiping, San Diego, CA, UNITED STATES Cheng, Jing, Beijing, CHINA Xu, Jia, San Diego, CA, UNITED STATES PΤ US 2002182627 20021205 A1

PI US 2002182627 A1 20021205 AI US 2002-104300 A1 20020322 (10) PRAI US 2001-311327P 20010810 (60) US 2001-278308P 20010324 (60)

DT Utility
FS APPLICATION

LREP DAVID R PRESTON & ASSOCIATES, 12625 HIGH BLUFF DRIVE, SUITE 205, SAN DIEGO, CA, 92130

CLMN Number of Claims: 59 ECL Exemplary Claim: 1 DRWN 24 Drawing Page(s)

LN.CNT 5459

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention recognizes that the determination of ion transport function or property using direct detection methods, such as patch-clamps, whole cell recording or single channel recording, are preferable to methods that utilize indirect detection methods, such as FRET based detection system. The present invention provides biochips and methods of use that allow for the direct analysis of ion transport function or property using microfabricated structures that can allow for automated detection of ion transport function or property. These biochips and methods of use thereof are particularly appropriate for automating the detection of ion transport function or property, particularly for screening purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 11 OF 17 USPATFULL on STN
2002:116000 USPATFULL

TI Electrochemical detection of nucleic acid sequences
Henkens, Robert W., Beaufort, NC, United States
O'Daly, John P., Carrboro, NC, United States
Wojciechowski, Marek, Cary, NC, United States
Zhang, Honghua, San Diego, CA, United States
Naser, Najih, Orlando, FL, United States
Roe, R. Michael, Apex, NC, United States
Stewart, Thomas N., Durham, NC, United States
Thompson, Deborah M., Raleigh, NC, United States

```
Sundseth, Rebecca, Durham, NC, United States
       Wegner, Steven E., Chapel Hill, NC, United States
       Andcare, Inc., Durham, NC, United States (U.S. corporation)
PΑ
       US 6391558
                           В1
                                20020521
PΙ
       US 2000-549853
                                20000414 (9)
AΙ
       Continuation-in-part of Ser. No. US 1998-44206, filed on 17 Mar 1998,
RLI
       now abandoned
       US 1997-40949P
                            19970318 (60)
PRAI
DT
       Utility
       GRANTED
FS
EXNAM Primary Examiner: Riley, Jezia
       Akerman Senterfitt
LREP
CLMN
       Number of Claims: 27
ECL
       Exemplary Claim: 1
       22 Drawing Figure(s); 20 Drawing Page(s)
DRWN
LN.CNT 4484
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       An electrochemical detection system which specifically detects selected
       nucleic acid segments is described. The system
       utilizes biological probes such as nucleic acid or
       peptide nucleic acid probes which are complementary
       to and specifically hybridize with selected nucleic
       acid segments in order to generate a measurable current
       when an amperometric potential is applied. The electrochemical signal
       can be quantified.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 12 OF 17 USPATFULL on STN
L6
ΑN
       2001:155603 USPATFULL
       Multi-array, multi-specific electrochemiluminescence testing
TI
       Wohlstadter, Jacob N., Rockville, MD, United States
TN
       Wilbur, James, Rockville, MD, United States
       Sigal, George, Gaithersburg, MD, United States
Martin, Mark, Rockville, MD, United States
Guo, Liang-Hong, Laurel, MD, United States
       Fischer, Alan, Cambridge, MA, United States
       Leland, Jon, Silver Spring, MD, United States
       Billadeau, Mark A., Mt. Airy, MD, United States
       Meso Scale Technologies, LLC (U.S. corporation)
PA
                                20010913
PΙ
       US 2001021534
                           A1
                                20010129 (9)
ΑI
       US 2001-771796
                           Α1
       Continuation of Ser. No. US 1996-715163, filed on 17 Sep 1996, GRANTED,
RLI
       Pat. No. US 6207369 Continuation-in-part of Ser. No. US 1996-611804,
       filed on 6 Mar 1996, GRANTED, Pat. No. US 6066448 Continuation-in-part
       of Ser. No. US 1995-402076, filed on 10 Mar 1995, ABANDONED
       Continuation-in-part of Ser. No. US 1995-402277, filed on 10 Mar 1995,
       ABANDONED
DT
       Utility
FS
       APPLICATION
       Kramer Levin Naftalis & Frankel LLP, 919 THIRD AVENUE, NEW YORK, NY,
LREP
       Number of Claims: 74
CLMN
       Exemplary Claim: 1
ECL
       39 Drawing Page(s)
DRWN
LN.CNT 6383
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Materials and methods are provided for producing patterned multi-array,
       multi-specific surfaces for use in diagnostics. The invention provides
       for electrochemiluminescence methods for detecting or measuring an
       analyte of interest. It also provides for novel electrodes for ECL
       assays. Materials and methods are provided for the chemical and/or
       physical control of conducting domains and reagent deposition for use
       multiply specific testing procedures.
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

FS

EXNAM

LREP

CLMN

Granted

Primary Examiner: Chin, Christopher L.

Whitman Breed Abbott & Morgan LLP

Number of Claims: 45

```
ANSWER 13 OF 17 USPATFULL on STN
L6
       2001:43927 USPATFULL
AN
ΤI
       Multi-array, multi-specific electrochemiluminescence testing
       Wohlstadter, Jacob N., Rockville, MD, United States
IN
       Wilbur, James, Rockville, MD, United States
       Sigal, George, Gaithersburg, MD, United States
Martin, Mark, Rockville, MD, United States
Guo, Liang-Hong, Laurel, MD, United States
       Fischer, Alan, Cambridge, MA, United States
       Leland, Jon, Silver Spring, MD, United States
       Billadeau, Mark A., Mt. Airy, MD, United States
Meso Scale Technologies, LLC, Gaithersburg, MD, United States (U.S.
PA
       corporation)
       US 6207369
                           В1
                                 20010327
PΤ
AΙ
       US 1996-715163
                                 19960917 (8)
       Continuation-in-part of Ser. No. US 1996-611804, filed on 6 Mar 1996,
RLI
       now patented, Pat. No. US 6066448 Continuation-in-part of Ser. No. US
       1995-402076, filed on 10 Mar 1995, now abandoned Continuation-in-part of
       Ser. No. US 1995-402277, filed on 10 Mar 1995, now abandoned
\mathbf{DT}
       Utility
FS
       Granted
       Primary Examiner: Chin, Christopher L.
EXNAM
       Kramer Levin Naftalis & Frankel LLP
LREP
       Number of Claims: 13
CLMN
       Exemplary Claim: 1
ECL
DRWN
       87 Drawing Figure(s); 47 Drawing Page(s)
LN.CNT 6321
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Materials and methods are provided for producing patterned multi-array,
       multi-specific surfaces for use in diagnostics. The invention provides
       for electrochemiluminescence methods for detecting or measuring an
       analyte of interest. It also provides for novel electrodes for ECL
       assays. Materials and methods are provided for the chemical and/or
       physical control of conducting domains and reagent deposition for use
       multiply specific testing procedures.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 14 OF 17 USPATFULL on STN
L6
       2000:146091 USPATFULL
ΑN
ΤI
       Multi-array, multi-specific electrochemiluminescence testing
       Wohlstadter, Jacob, Cambridge, MA, United States
IN
       Wilbur, James, Rockville, MD, United States
       Sigal, George, Gaithersburg, MD, United States
       Martin, Mark, Rockville, MD, United States
       Guo, Liang-Hong, Laurel, MD, United States
       Fischer, Alan, Cambridge, MA, United States
       Leland, Jon, Silver Spring, MD, United States
       Meso Scale Technologies, Gaitersburg, MD, United States (U.S.
PA
       corporation)
PI
       US 6140045
                                 20001031
                                 19970306 (8)
AΙ
       US 1997-814085
       Continuation-in-part of Ser. No. US 1995-402076, filed on 10 Mar 1995,
RLI
       now abandoned which is a continuation of Ser. No. US 1995-402277, filed
       on 10 Mar 1995, now abandoned
       US 1996-12957P
                            19960306 (60)
PRAI
DT
       Utility
```

```
DRWN
        62 Drawing Figure(s); 26 Drawing Page(s)
LN.CNT 4524
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Materials and methods are provided for producing patterned multi-array,
AB
       multi-specific surfaces which are electronically excited for use in
        electrochemiluminescence based tests. Materials and methods are provided
        for the chemical and/or physical control of conducting domains and
        reagent deposition for use in flat panel displays and multiply specific
        testing procedures.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L6
     ANSWER 15 OF 17 USPATFULL on STN
AN
        2000:91700 USPATFULL
ΤI
       Multi-array, multi-specific electrochemiluminescence testing
IN
       Wohlstadter, Jacob, Rockville, MD, United States
       Wilbur, James, Rockville, MD, United States
       Sigal, George, Gaithersburg, MD, United States
Martin, Mark, Rockville, MD, United States
Guo, Liang-Hong, Laurel, MD, United States
       Fischer, Alan, Cambridge, MA, United States
       Leland, Jon, Silver Spring, MD, United States
       Meso Scale Technologies, LLC., Gaithersburg, MD, United States (U.S.
PA
       corporation)
PΙ
       US 6090545
                                20000718
ΑI
       US 1997-814141
                                19970306 (8)
RLI
       Continuation-in-part of Ser. No. US 1995-402076, filed on 10 Mar 1995
       And a continuation-in-part of Ser. No. US 1995-402277, filed on 10 Mar
PRAI
       US 1996-12958P
                            19960306 (60)
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Chin, Christopher L.
LREP
       Whitman Breed Abbott & Morgan LLP
       Number of Claims: 80
CLMN
ECL
       Exemplary Claim: 21
DRWN
       60 Drawing Figure(s); 26 Drawing Page(s)
LN.CNT 4731
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Materials and methods are provided for producing patterned multi-array,
AB
       multi-specific surfaces which are electronically excited for use in
       electrochemiluminescence based tests. Materials and methods are provided
       for the chemical and/or physical control of conducting domains and
       reagent deposition for use in flat panel displays and multiply specific
       testing procedures.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 16 OF 17 USPATFULL on STN
L6
ΑN
       2000:64674 USPATFULL
ΤI
       Multi-array, multi-specific electrochemiluminescence testing
TN
       Wohlstadter, Jacob N., Cambridge, MA, United States
       Wilbur, James, Rockville, MD, United States
       Sigal, George, Gaithersburg, MD, United States
       Martin, Mark, Rockville, MD, United States
       Guo, Liang-Hong, Laurel, MD, United States
       Fischer, Alan, Cambridge, MA, United States
       LeLand, Jon, Silver Spring, MD, United States
PA
       Meso Sclae Technologies, LLC., Gaithersburg, MD, United States (U.S.
       corporation)
PΤ
       US 6066448
                                20000523
AΤ
       US 1996-611804
                                19960306 (8)
RLI
       Continuation-in-part of Ser. No. US 1995-402076, filed on 10 Mar 1995
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ECL

Exemplary Claim: 1

which is a continuation-in-part of Ser. No. US 1995-402277, filed on 10 Mar 1995 DTUtility FS Granted EXNAM Primary Examiner: Chin, Christian L. Whitman Breed Abbott & Morgan LLP LREP CLMN Number of Claims: 119 ECL Exemplary Claim: 1 DRWN 62 Drawing Figure(s); 26 Drawing Page(s) LN.CNT 4770 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Materials and methods are provided for producing patterned multi-array, multi-specific surfaces which are electronically excited for use in electrochemiluminescence based tests. Materials and methods are provided for the chemical and/or physical control of conducting domains and reagent deposition for use in flat panel displays and multiply specific testing procedures. CAS INDEXING IS AVAILABLE FOR THIS PATENT.

.L6 ANSWER 17 OF 17 USPATFULL on STN 2000:57621 USPATFULL ΑN TIMolecular wire injection sensors IN Keen, Randy E., San Diego, CA, United States Keensense, Inc., San Diego, CA, United States (U.S. corporation) PΑ PIUS 6060327 20000509 ΑI US 1997-856822 19970514 (8) DTUtility FS Granted Primary Examiner: Chin, Christopher L. EXNAM Beyer & Weaver, LLP LREP CLMN Number of Claims: 36 ECL Exemplary Claim: 1 DRWN 7 Drawing Figure(s); 6 Drawing Page(s) LN.CNT 2968 CAS INDEXING IS AVAILABLE FOR THIS PATENT. AB

Disclosed is a sensor for sensing the presence of an analyte component without relying on redox mediators. This sensor includes (a) a plurality of conductive polymer strands each having at least a first end and a second end and each aligned in a substantially common orientation; (b) a plurality of molecular recognition headgroups having an affinity for the analyte component and being attached to the first ends of the conductive polymer strands; and (c) an electrode substrate attached to the conductive polymer strands at the second ends. The electrode substrate is capable of reporting to an electronic circuit reception of mobile charge carriers (electrons or holes) from the conductive polymer strands. The electrode substrate may be a photovoltaic diode.

Also disclosed is method of forming a sensor capable of sensing the presence of an analyte component. This method includes (a) contacting a sensor substrate (e.g., a device element of a device on semiconductor chip) with a first medium containing mobile conductive polymer strands or precursors of the conductive polymer strands; (b) applying a first potential to the substrate sufficient to form a first structure having the conductive polymer strands affixed to the substrate; (c) contacting the sensor substrate, with affixed conductive polymer strands, with a second medium containing mobile molecular recognition headgroups; and (d) applying a second potential to the substrate sufficient to affix the molecular recognition headgroups to the affixed conductive polymer strands.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.